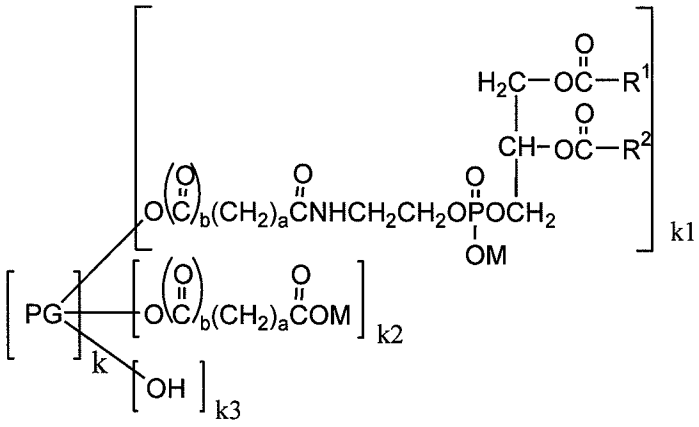
Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A phospholipid derivative represented by the following formula (1):



(1)

wherein [PG]k represents a residue of polyglycerin having a polymerization degree of k, wherein k is 2 to 50, R^1CO and R^2CO independently represent an acyl group having 8 to 22 carbon atoms, symbol "a" independently represents an integer of 0 to 5, symbol "b" independently represents 0 or 1, M represents hydrogen atom, an alkali metal atom, an ammonium, or an organic ammonium, and k1, k2, and k3 represent numbers satisfying the following conditions: $1 \leqq k1 \leqq (k+2)/2$, $0 \leqq k2$, and $k1 + k2 + k3 = k + 2$.

2. (Original) The phospholipid derivative according to claim 1, wherein k1 satisfies $1 \leqq k1 \leqq 2$.

3. (Previously Presented) The phospholipid derivative according to claim 1, wherein k2 satisfies $0 \leqq k2 \leqq 1$.

4. (Previously Presented) The phospholipid derivative according to claim 1, wherein k1, k2, and k3 satisfy $8 \leqq k1 + k2 + k3 \leqq 52$.

5. (Previously Presented) The phospholipid derivative according to claim 1, wherein R^1CO and R^2CO independently represent an acyl group having 12 to 20 carbon atoms.

6. (Previously Presented) The phospholipid derivative according to claim 1, wherein k2 is 0.

7. (Original) The phospholipid derivative according to claim 6, wherein a and b represent 0.

8. (Previously Presented) The phospholipid derivative according to claim 1, wherein k2 satisfies $0 < k2$.

9. (Previously Presented) A lipid membrane structure comprising the phospholipid derivative according to claim 1.

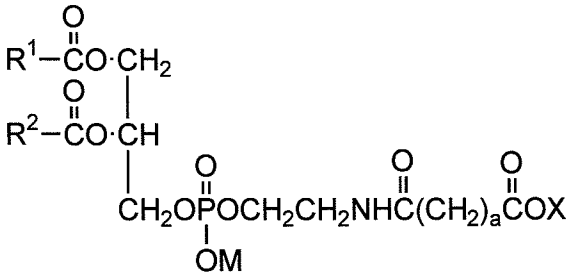
10. (Original) The lipid membrane structure according to claim 9, which is a liposome.

11. (Previously Presented) A surfactant comprising the phospholipid derivative according to claim 1.

12. (Previously Presented) A solubilizer comprising the phospholipid derivative according to claim 1.

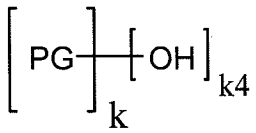
13. (Previously Presented) A dispersing agent comprising the phospholipid derivative according to claim 1.

14. (Currently Amended) A method for producing the phospholipid derivative according to claim 1, which comprises ~~the step of~~ reacting a compound represented by the following formula (2):



(2)

wherein R^1, R^2, a, and M have the same meanings as defined above, and X represents hydrogen atom or N-hydroxysuccinimide, with a polyglycerin represented by the following formula (3):



(3)

wherein [PG]k represents a residue of polyglycerin having a polymerization degree of k, wherein k has the same meaning as defined above, and k4 is a number satisfying the following condition: k4 = k + 2.

15. (Currently Amended) A method for producing the phospholipid derivative according to claim 1, which comprises ~~the following steps~~:

(A) ~~the step of~~ reacting a polyglycerin with a dibasic acid or a halogenated carboxylic acid to obtain a carboxylated polyglycerin; and

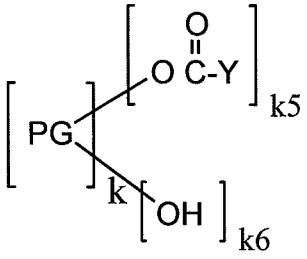
(B) ~~the step of~~ reacting the carboxylated polyglycerin obtained in ~~the step~~ (A) with a phospholipid.

16. (Currently Amended) A method for producing the phospholipid derivative according to claim 1, which comprises ~~the following steps~~:

(A) ~~the step of~~ reacting a polyglycerin with a halogenated carboxylic acid ester and hydrolyzing the resulting ester compound to obtain a carboxylated polyglycerin; and

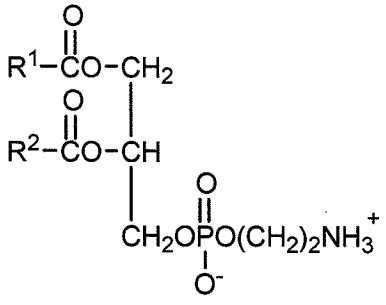
(B) ~~the step of~~ reacting the carboxylated polyglycerin obtained in ~~the step~~ (A) with a phospholipid.

17. (Currently Amended) A method for producing the phospholipid derivative according to claim 1, which comprises ~~the step of~~ reacting a polyglycerin derivative represented by the following formula (4):



(4)

wherein [PG]k represents a residue of polyglycerin having a polymerization degree of k, wherein k represent a number of 2 to 50, Y represents hydroxyl group or a leaving group, and k5 and k6 are numbers satisfying the following conditions: $1 \leqq k5 \leqq (k+2)/2$, and $k5 + k6 = k + 2$, with a phospholipid represented by the following formula (5):



(5)

wherein R^1 and R^2 have the same meanings as defined above, in an organic solvent in the presence of a basic catalyst.

18. (Original) A pharmaceutical composition containing the lipid membrane structure according to claim 9 retaining a medicament.

19. (Original) The pharmaceutical composition according to claim 18, wherein the medicament is an antitumor agent.